

Amendments to the Claims

The following listing of claims will replace all prior versions and listings of the claims in the application:

---

Claims 1-22 (withdrawn)

Claim 23 (currently amended): A semiconductor device comprising:

a semiconductor layer formed on an insulating layer;

a gate conductor formed on the semiconductor layer;

spacers formed on sidewalls of the gate conductor and on the semiconductor layer;

extension regions arranged in the semiconductor layer on both sides of the gate conductor and extending at least under the spacers;

diffusion regions formed in the semiconductor material adjacent to the extension regions such that a portion of at least one of the extension regions is exposed at a surface of the semiconductor layer; and

a metal layer formed at least in the exposed portion of the extension region, the metal layer contacting the semiconductor layer.

Claim 24 (currently amended): The device according to claim 23, wherein the extension regions are lower doped [then] than the diffusion regions.

Claim 25 (currently amended): The device according to claim 23, wherein the metal layer [also] contacts at least one of the diffusion region regions.

Claim 26 (canceled)

Claim 27 (currently amended): The device according to claim 23, wherein a portion of each the extension region is exposed on both sides of the gate conductor and the metal layer is formed in both the exposed portions of the extension regions.

Claim 28 (previously added): The device according to claim 23, wherein said extension regions extend further under the spacers than said diffusion regions.

Claim 29 (previously added): The device according to claim 23, wherein said metal layer and said exposed portion of the extension region form a Schottky diode.

Claim 30 (previously added): The device according to claim 29, wherein said metal layer extends into the semiconductor layer.

Claim 31 (previously added): The device according to claim 30, wherein said metal layer extends into a portion of the semiconductor layer below said extension regions.

Claim 32 (currently amended): An integrated circuit disposed on an SOI substrate having a body region, comprising a transistor having a source diffusion region, a gate formed over said body region, a first sidewall spacer disposed on a sidewall of said gate abutting said source diffusion region, a drain diffusion region, a second sidewall spacer disposed on a sidewall of said gate abutting

Application No. 09/978,528  
Amendment dated June 30, 2003  
Reply to Office Action of March 31, 2003

11  
said drain diffusion region, wherein said first sidewall spacer is thinner than said second sidewall spacer, and extension diffusion regions that extend further under said gate than said source diffusion region or said drain diffusion region, said extension diffusion regions having a dopant concentration less than that of said source diffusion region and said drain diffusion region; and a conductor in contact with a at least a portion of at least one of said extension regions and at least a portion of said source diffusion region to form a Schottky diode that prevents charge from accumulating in said body region.

Claim 33 (previously added): The device of claim 32 wherein said conductor is in contact with said body region.

---